



Hollow chuck double acting/single acting

CKF Series

- Operational stroke length: 5, 7, 8, 16mm



RRC
GRC
RV3*
NHS
HR
LN
FH100
HAP
BSA2
BHA/
BHG
LHA
LHAG
HKP
HLA/
HLB
HLAG/
HLBG
HEP
HCP
HMF
HMFb
HFP
HLC
HGP
FH500
HBL
HDL
HMD
HJL
BHE
CKG
CK
CKA
CKS
CKF
CKJ
CKL2
CKL2
*-HC
CKH2
CKLB2
NCK/
SCK/FCK
FJ
FK
Ending

Specifications

Descriptions	CKF				
	15CS	20CS	25CS	30CS	40CS
Size					
Cylinder bore size mm	φ 30		φ 40	φ 50	φ 80
Actuation	Double acting/single acting				
Working fluid	Compressed air				
Max. working pressure MPa	0.7				
Min. working pressure MPa	0.3				
Ambient temperature °C	5 to 60				
Port size	M5				
Operational stroke length mm	5		7	8	16
Rod diameter mm	φ 16		φ 24	φ 28	φ 34
Capacity of reciprocating cm ³	2.5	5.2	7.3	13.3	73.2
Hollow diameter mm	φ 5.5	φ 8.4	φ 10.4	φ 12	φ 16
Repeatability mm	± 0.03				
Product weight kg	0.29	0.43	0.63	1.2	2.3
Lubrication	Not required (use turbine oil Class 1 ISO VG32 for lubrication)				

Switch specifications

Descriptions	Proximity 2 wire	Proximity 3 wire
	T2H/V	T3H/V
Applications	Programmable controller	Programmable controller, relay
Output method	-	NPN output
Power voltage	-	10 to 28 VDC
Load voltage/current	10 to 30 VDC, 5 to 20mA (Note 1)	30 VDC or less, 100mA or less
Light	LED (ON lighting)	
Leakage current	1mA or less	10 ^μ A or less

Note 1: Max. load current above: 20 mA at 25°C. If ambient temperature around switch is higher than 25°C, 5 to 10mA at 60°C for T2 type, while 5 to 15mA at 60°C for S2 type.

How to order

Without switch

CKF - 15CS - O

With switch

CKF - 15CS - O - T2H - R

A Size

B Option
Note 1, Note 2

C Switch model no.
Note 3

D Switch quantity

⚠ Note on model no. selection

Note 1: Y11 and Y12 are available for CKF-15CS, while Y11, Y12 and Y21 are available for CKF-20CS to 30CS, and Y11 and Y21 are available for CKF-40CS.

Note 2: Refer to pages 494 to 497 for the dimensions and applicable model of the small jaw. When ordering as option, 3 pieces are provided.

Note 3: Switches other than C switch model no. are available. (Custom order) Refer to Ending 1 for details.

Symbol	Descriptions			
A Size				
15CS				
20CS				
25CS				
30CS				
40CS				
B Option				
Blank	Standard (double acting)			
O	Single acting (normally open)			
C	Single acting (normally closed)			
Y11	With small jaw material (S50C) Outer mount chuck (small jaw No.: 510 to 540,710)			
Y12	With small jaw material (S50C) Inner mount chuck (small jaw No.: 610 to 630)			
Y21	With small jaw material (MC nylon) Outer mount chuck (small jaw No.: 510 to 540,710)			
Y22	With small jaw material (MC nylon) Inner mount chuck (small jaw No.: 610 to 630)			
C Switch model no.				
Axial lead wire	Radial lead wire	Proximity Contact	Indicator	Lead wire
T2H*	T2V*	1 color indicator type		2-wire
T3H*	T3V*			3-wire
*Lead wire length				
Blank	1m (standard)			
3	3m (option)			
5	5m (option)			
D Switch quantity				
R	One on open side			
H	One on closed side			
D	Two			

<Example of model number>

CKF-15CS-O-T2H-R

Model: Hollow chuck

- A Size : 15CS
- B Option : Single acting, normally open type
- C Switch model no.: Proximity T2H switch, lead wire 1m
- D Switch quantity : One on open side

How to order switch

SW - T2H

Switch model no.
(Item above C)

CKF-30CS, 40CS

- For switch T*H*
- Switch body + mounting bracket

CKF - T2H

Switch model no.
(Item above C)

- For switch T*V*
- Switch body + mounting bracket

CKF - T2V - *

Switch model no.
(Item above C)

(Select either R (open) or H (closed) for sections marked with an asterisk (*).)

CKF-30CS, 40CS

- Mounting bracket

CKF - T

- Mounting bracket

CKF - TV - *

Note: When the type with two switches is selected, if the model has a short operation stroke, both switches may turn on depending on the workpiece size.

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HBL
HDL
HMD
HJL
BHE
CKG
CK
CKA
CKS
CKF
CKJ
CKL2
CKL2
*-HC
CKH2
CKLB2
NCK/SCK/FCK
FJ
FK
Ending

Hollow chuck
Chuck

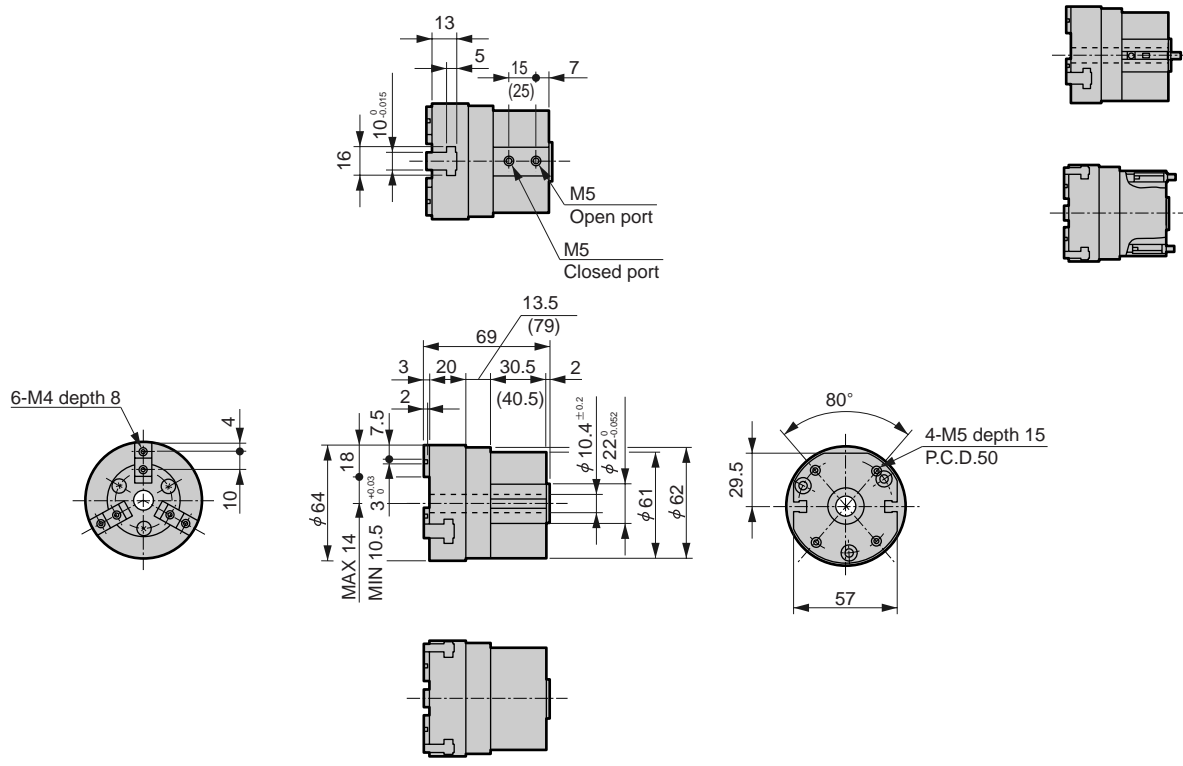
Dimensions



● CKF-25CS standard/O/C

● With switch

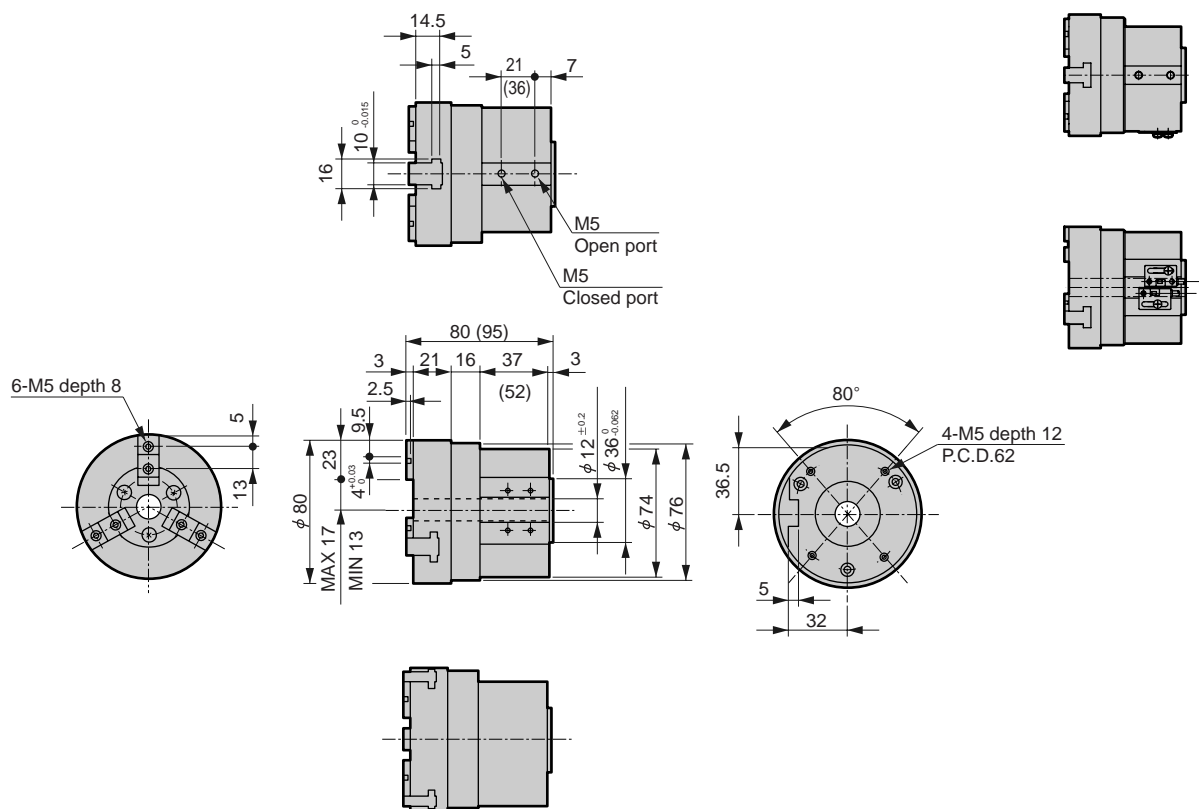
· Dimension in () for O [normally open] and C [normally closed] specifications.



● CKF-30CS standard/O/C

● With switch

· Dimension in () for O [normally open] and C [normally closed] specifications.



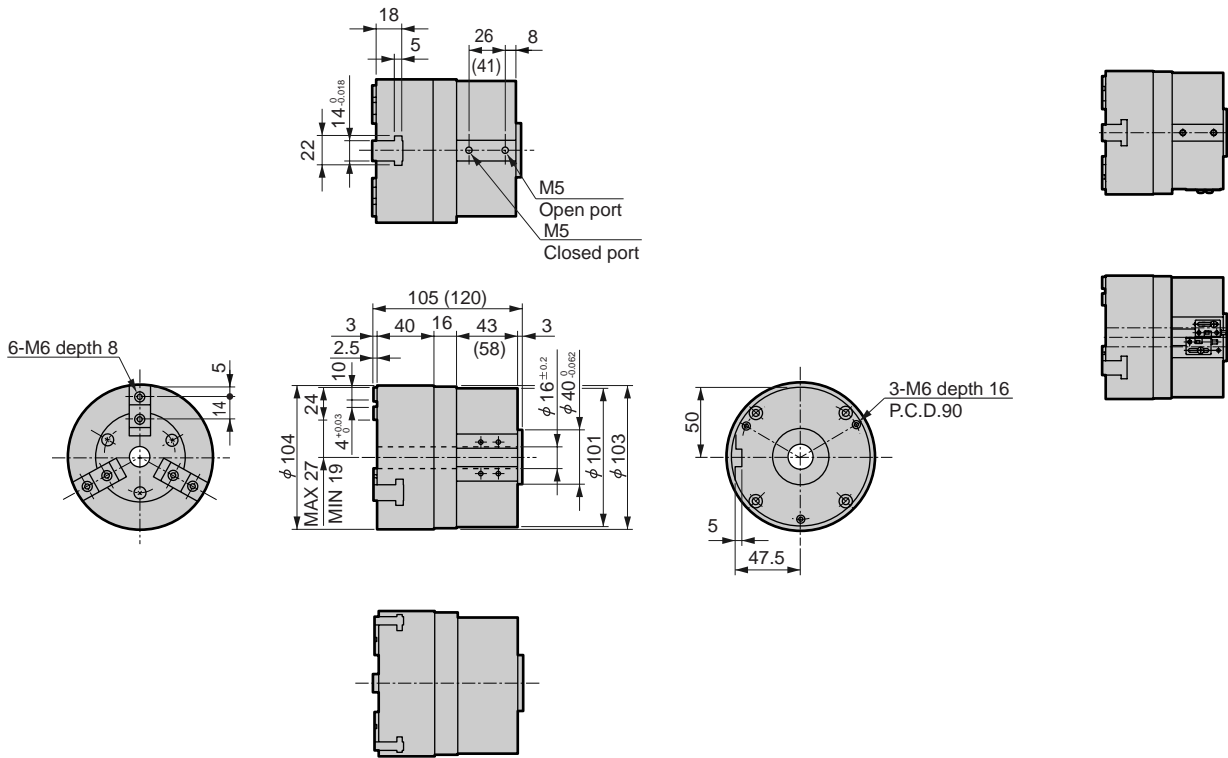
Dimensions



● CKF-40CS standard/O/C

· Dimension in () for O [normally open] and C [normally closed] specifications.

● With switch



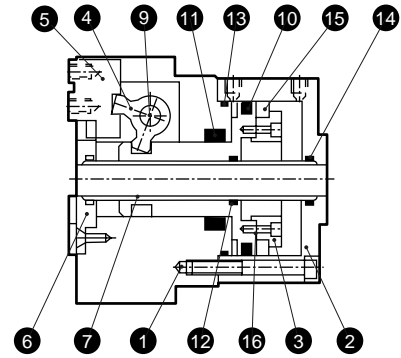
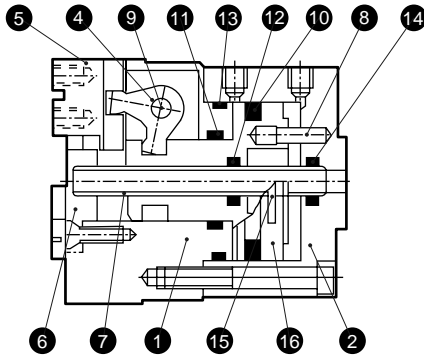
RRC
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CKL2
CKL2 *-HC
CKH2
CKLB2
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FJ
FK
Ending

Hollow chuck
Chuck

Internal structure and parts list

● CKF-15CS to 25CS

● CKF-30CS to 40CS

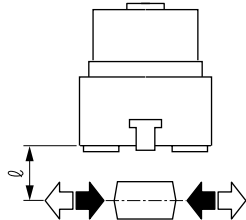


No.	Parts name	Material	Remarks	No.	Parts name	Material	Remarks
1	Body	Aluminum alloy		9	Fulcrum axis	Steel	
2	Cylinder	Aluminum alloy		10	Piston packing seal	Nitrile rubber	
3	Piston B	Stainless steel		11	Rod packing seal	Nitrile rubber	
4	Arm	Steel		12	Guide rod packing seal	Nitrile rubber	
5	Master key	Steel		13	Cylinder gasket	Nitrile rubber	
6	Center guard	Aluminum alloy		14	Pipe fixing gasket	Nitrile rubber	
7	Guide pipe	Stainless steel		15	Magnet		
8	Stopper pin	Stainless steel		16	Piston A	Stainless steel	

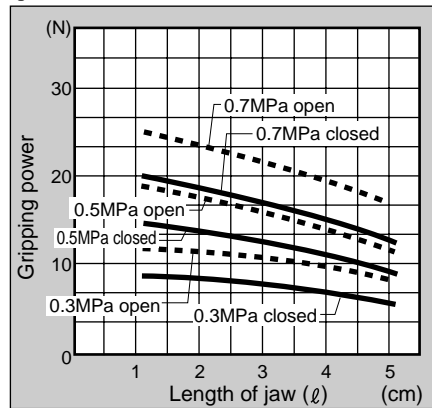
Gripping performance data

Gripping power which functions to open direction and closed direction with length ℓ of hand jaw at supply pressure 0.3, 0.5, 0.7 MPa is shown.

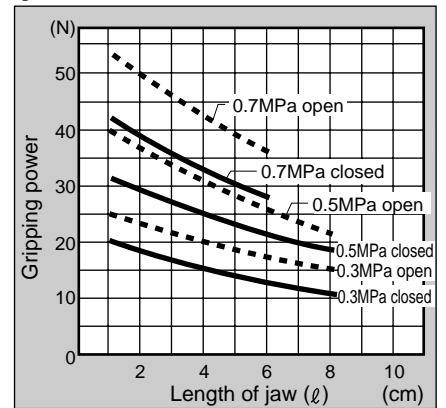
- Open direction (←) (shown with broken line)
- Closed direction (→) ——— (shown with continuous line)



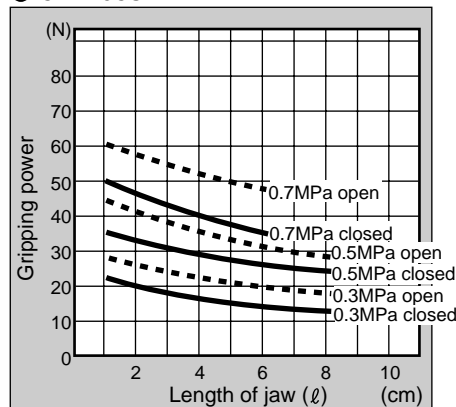
● CKF-15CS



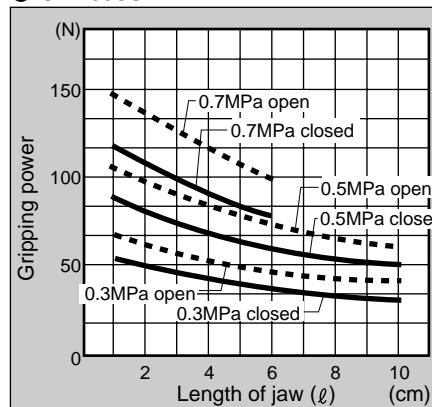
● CKF-20CS



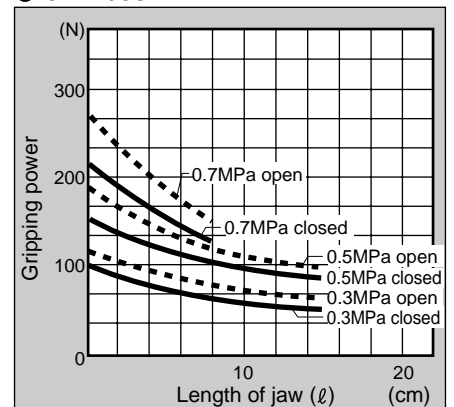
● CKF-25CS



● CKF-30CS



● CKF-40CS



(Note) O type gripping power decreases approximate 20 to 30 % comparing to double acting type to closed direction.
 C type gripping power decreases approximate 10 to 20 % comparing to double acting type to open direction.
 Grip performance data indicates the grip for one jaw. There are three jaws, so multiply the holding force in the graph by three when making a selection.